

[DEVICE AND METHOD FOR MONITORING FUEL CELL PERFORMANCE AND CONTROLLING A FUEL CELL SYSTEM]

Abstract of Disclosure

A device and method to measure individual or grouped cell voltages to monitor fuel cell performance for diagnostic or control purposes. More particularly, the present invention involves a device to make attachments to individual cells or groups of cells of a fuel cell stack which measures the voltage or the differences of voltages at a plurality of points of these individual cells or groups of cells, the relationship of these voltages to other fuel cell stack operating parameters, or the fuel cell stack current relationship, transient response, or frequency response of these voltages and uses these measurements to report on the performance of the fuel cell stack, to control fuel cell system parameters based on this performance data, or to isolate individual cells or cell groups. The method further relates to the control of a device to modulate the load current of the fuel cell stack in tandem with the said measurements.